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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,336	04/12/2001	Corene Casper	AUS920000843US1	3773

7590 03/26/2004
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EXAMINER

IQBAL, NADEEM

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 03/26/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,336

Applicant(s)

CASPER ET AL.

Examiner

Nadeem Iqbal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-29 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 2,5,6 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 3, 4, 7, 9 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song et al., (U.S. Patent number 6003129).

4. As per claims 1 & 10, Song teaches (col. 2, lines 38-40) a multiprocessor computer system with definition of interrupt and exception handling where a data processor detects exceptions but defer exception interrupt and exception handling operations to another processor called a control processor. He thus teaches limitations pertain to event handling in a multiprocessor system that comprises encountering an event by one processor in the multiprocessor system. He also teaches (col. 2, lines 55-57) a data processor that enters an idle

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state upon reset and when an exception is detected. He thus teaches limitations pertains to stopping at least one other processor of the system. He does not explicitly disclose stopping at least one processor by forcing the at least one other processor to fetch instructions from a copy of an operating system kernel having at least one breakpoint. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to realize that Song also teaches to stop at least one processor by forcing the at least one other processor to fetch instructions from a copy of an operating system kernel, since he teaches as stated above that the data processor detects exceptions but defer exception interrupt and exception handling operations to another processor called a control processor which executes (col. 2, lines 47-49) operating system programs such as interrupt and exception handling, therefore the control processor would be forced to fetch instructions from a copy of an operating system kernel having at least one breakpoint.

Allowable Subject Matter

5. Claims 11-29 allowed.
6. Claims 2, 5, 6, 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. As per claim 3, He teaches as stated above that the data processor detects exceptions but defer exception interrupt and exception handling operations to another processor called a control processor which executes (col. 2, lines 47-49) operating system programs such as interrupt and exception handling, therefore the caches of the at least one other processor (data processor)

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would have to be flushed in order for the control processor to start to execute operating system programs such as interrupt and exception handling.

8. As per claims 4 & 7, He already teaches one another processor called a control processor which executes (col. 2, lines 47-49) operating system programs such as interrupt and exception handling, therefore upon encountering a breakpoint, the control processor would enter a breakpoint handler.

9. As per claim 9, Song teaches as stated per claim 1 above a data processor detects exceptions but defer exception interrupt and exception handling operations to another processor called a control processor, therefore would not support the use of non-maskable interrupts.

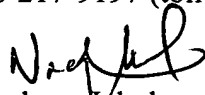
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadeem Iqbal whose telephone number is (703)-308-5228. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703)-305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Nadeem Iqbal
Primary Examiner
Art Unit 2114

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